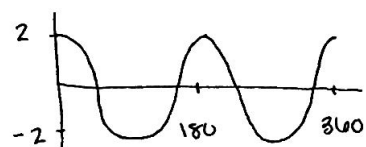


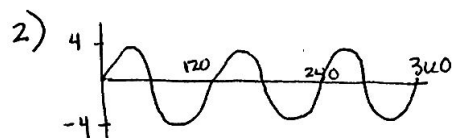
Name: _____

CW - Practice Graphing Trig Functions

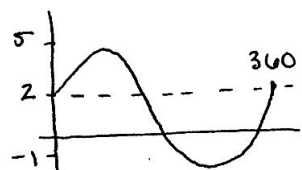
A. State period B. State amplitude C. Write equation



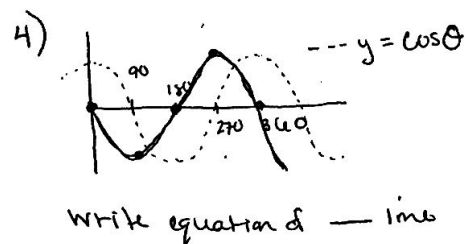
A.
B.
C.



A.
B.
C.



A.
B.
C.



A. State amplitude B. State period C. State any other transformations (if applicable)
↓ ↓ ↓
vert. shift phase shift reflect

5) $y = -3 \sin 4\theta$

A.
B.
C.



7) $y = \cos \frac{1}{2}\theta$

A.
B.



6) $y = 5 \cos 2\theta - 3$

A.
B.
C.



8) $y = 3 \sin [2(\theta - 180)]$

A.
B.
C.



In Problems 43–66, graph each function. Be sure to label key points and show at least two cycles. Verify the graph using a graphing utility. Use the graph to determine the domain and the range of each function.

43. $y = 4 \cos x$

44. $y = 3 \sin x$

45. $y = -4 \sin x$

46. $y = -3 \cos x$

47. $y = \cos(4x)$

48. $y = \sin(3x)$

49. $y = \sin(-2x)$

50. $y = \cos(-2x)$

51. $y = 2 \sin\left(\frac{1}{2}x\right)$

52. $y = 2 \cos\left(\frac{1}{4}x\right)$

53. $y = -\frac{1}{2} \cos(2x)$

54. $y = -4 \sin\left(\frac{1}{8}x\right)$

55. $y = 2 \sin x + 3$

56. $y = 3 \cos x + 2$

57. $y = 5 \cos(\pi x) - 3$

58. $y = 4 \sin\left(\frac{\pi}{2}x\right) -$

59. $y = -6 \sin\left(\frac{\pi}{3}x\right) + 4$

60. $y = -3 \cos\left(\frac{\pi}{4}x\right) + 2$

61. $y = 5 - 3 \sin(2x)$

62. $y = 2 - 4 \cos(3x)$

63. $y = \frac{5}{3} \sin\left(-\frac{2\pi}{3}x\right)$

64. $y = \frac{9}{5} \cos\left(-\frac{3\pi}{2}x\right)$

65. $y = -\frac{3}{2} \cos\left(\frac{\pi}{4}x\right) + \frac{1}{2}$

66. $y = -\frac{1}{2} \sin\left(\frac{\pi}{8}x\right)$

In Problems 67–70, write the equation of a sine function that has the given characteristics.

67. Amplitude: 3
Period: π

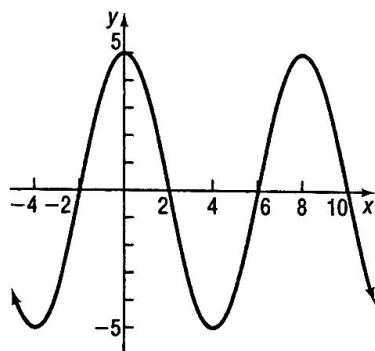
68. Amplitude: 2
Period: 4π

69. Amplitude: 3
Period: 2

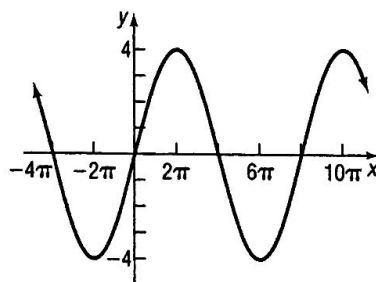
70. Amplitude: 4
Period: 1

In Problems 71–84, find an equation for each graph.

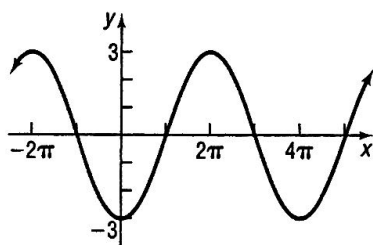
71.



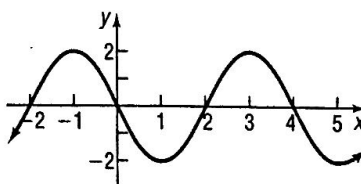
72.



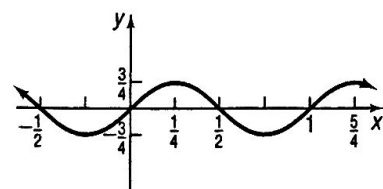
73.



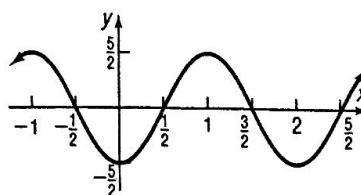
74.



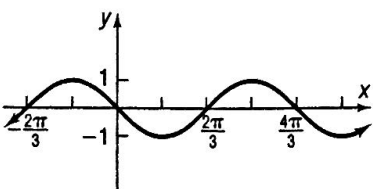
75.



76.



77.



78.

